

Design Element	Factor	Cars	Cars/ Trailers	Trucks	Total
<b>Mainline Traffic Data</b>					
20 Year ADT (A)					
20 Year ADT, Directional (B)	A x 0.60				
DHV, Directional (DHV)	B x 0.135 (1)				
Traffic Composition (20-year projected)	(D <sub>1</sub> ) ___ Cars	C <sub>1</sub> =DHV x D <sub>1</sub>	C <sub>2</sub> =DHV x D <sub>2</sub>	C <sub>3</sub> =DHV x D <sub>3</sub>	C=C <sub>1</sub> +C <sub>2</sub> + C <sub>3</sub>
Cars (D <sub>1</sub> ) ..... 1-(D <sub>2</sub> +D <sub>3</sub> )	(D <sub>2</sub> ) ___ Cars/Trailers				
Cars/Trailers (D <sub>2</sub> )..... 5%					
Trucks (D <sub>3</sub> )..... %	(D <sub>3</sub> ) ___ Trucks				
<b>Vehicles Per Hour @ Rest Area (VPH)</b>					
Cars Stopping (E <sub>1</sub> )		VPH <sub>1</sub> =E <sub>1</sub> x C <sub>1</sub>	VPH <sub>2</sub> =E <sub>2</sub> x C <sub>2</sub>	VPH <sub>3</sub> =E <sub>3</sub> x C <sub>3</sub>	VHP=VHP <sub>1</sub> + VHP <sub>2</sub> + VHP <sub>3</sub>
Normal Routes ..... .09	(E <sub>1</sub> ) ___ Cars				
Tourist Routes..... .13					
Information & Welcome Centers ..... .15	(E <sub>2</sub> ) ___ Cars/Trailers				
Cars/Trailers (E <sub>2</sub> )					
Normal Stopping ..... .15	(E <sub>3</sub> ) ___ Trucks				
Trucks (E <sub>3</sub> )					
Normal Stopping ..... .15					
<b>Parking Spaces</b>					
Cars (T <sub>1</sub> ) –	(T <sub>1</sub> ) ___ Cars	P <sub>1</sub> =VPH <sub>1</sub> x T <sub>1</sub>	P <sub>2</sub> =VPH <sub>2</sub> x T <sub>2</sub>	P <sub>3</sub> =VPH <sub>3</sub> x T <sub>3</sub>	P=P <sub>1</sub> +P <sub>2</sub> + P <sub>3</sub>
Average Stop ..... .25 to .33 hr.					
@ info. centers ... .33 to .50 hr.	(T <sub>2</sub> ) ___ Cars/Trailers				
Cars/Trailers (T <sub>2</sub> )..... .50 hr.					
Trucks (T <sub>3</sub> ) (2)..... .50 hr.	(T <sub>3</sub> ) ___ Trucks				
<b>Rest Room Requirements</b>					
Persons/Hour (PH)	VPH x 3.0 occupancy x .75 use				
Number of Comfort Facilities – Men's Room (M)	PH x 0.5				
Number of Comfort Facilities – Women's Room (W)	PH x 0.5				

- (1) Assume 13.5% or the 20-year projected DHV, whichever is greater.  
(2) Maximum of 80 truck and recreational vehicle parking spaces.

**DESIGN GUIDE FOR REST AREA FACILITIES**  
**(Interstates and Freeways)**  
**Figure 51-2A**